CHAPTER 5

SPLIT PEAS

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5.1 DEFINITIONS

Split Peas. Threshed seeds of the garden type pea plant (Pisum sativum L. and *Pisum sativum var. arvense (L.) Poir.), which have 50.0 percent or more of the peas split into halves or smaller pieces and contain not more than 10.0 percent of foreign material.*

NOTE: Two halves of a pea that are misaligned but stuck together must be considered split peas.

If a sample does not meet the definition of Split Peas, examine it further to determine if it is:

a. Another commodity or grain for which standards have been established; or

b. "Not Standardized Commodity." No further analysis is necessary on a sample designated as "Not Standardized Commodity" unless a specific factor test is requested.

5.2 GRADES AND GRADE REQUIREMENTS

The grades and grade requirements for all classes of split peas are shown in the United States Standards for Split Peas and in the attachment, "Grades and Grade Requirements for Split Peas," to this chapter.

5.3 SPECIAL GRADE AND SPECIAL GRADE REQUIREMENTS

a. The special grade and special grade requirements of all classes of split peas are shown in the United States Standards for Split Peas.

b. The special grade "Split Pea Chips" must be applied in accordance with the following requirements. The split peas must readily pass through a 12/64-inch round-hole sieve. Additional size requirements for the respective numerical grades must be as follows:

U.S. No. 1 Not more than 3.0 percent must readily pass through a 6/64-inch round-hole sieve.

U.S. No. 2 Not more than 6.0 percent must readily pass through a 6/64-inch round-hole sieve.

U.S. No. 3 Not more than 10.0 percent must readily pass through a 6/64-inch round-hole sieve.

5.4 WORK RECORD

Record the results of all tests and findings clearly and accurately on a laboratory ticket or similar form. This will be used as the source of the information reported on the inspection certificate. Federal Grain Inspection Service (FGIS) personnel must use either form FGIS-981, "Pea and Lentil Laboratory Ticket," or form FGIS-982, "Pea and Lentil Sample Ticket." Cooperators must use a similar form.

NOTE: For submitted sample inspections, results may be recorded on form FGIS-994, "Commodity Certificate - Submitted Sample Inspection," or similar form.

5.5 REPRESENTATIVE PORTION

A specified quantity of split peas divided out from the representative sample (refer to Chapter 2, sampling chapter) by means of an FGIS approved device.

5.6 WORK SAMPLE

A representative portion of split peas (approximate size - 1,000 grams) that is used to make all such determinations required for a particular class of split peas.

5.7 FILE SAMPLE

a. A representative portion of split peas (approximate size - 1,000 grams) that may be used in conjunction with the work sample, when needed, to determine the complete grade. File samples may also be used for monitoring, appeal inspection and board appeal purposes.

b. Retain file samples in appropriate containers for the required retention period. After maintaining for the required period, dispose of the file samples in accordance with established procedures. See FGIS Directive 9170.13, "Uniform File Sample Retention System," for additional information.

5.8 PERCENTAGES

a. Percentages are determined upon the basis of weight and are rounded as follows:

(1) When the figure to be rounded is followed by a figure greater than or equal to five, round to the next higher figure; e.g., report 6.36 as 6.4, 0.35 as 0.4, and 2.45 as 2.5.

(2) When the figure to be rounded is followed by a figure less than five, retain the figure; e.g., report 8.34 as 8.3, and 1.22 as 1.2.

b. Record all results to the nearest tenth percent.

5.9 LABORATORY SCALES

Weigh work portions and separations from work portions using an approved grain test scale with an appropriate division size. See Equipment Handbook, Chapter 2.

5.10 PRELIMINARY EXAMINATION

a. The sampler must; (1) observe the uniformity of the split peas as to class; quality, and condition; (2) make the determination for "Heating;" (3) draw the representative sample; and (4) report relevant information to the inspector.

b. The inspector must review the sampler's remarks/information. If the inspector has questions or doubts the representativeness of the sample, he or she must contact the sampler for the information, or make arrangements to obtain another sample.

5.11 BASIS OF DETERMINATION

All factor determinations must be made upon the basis of the split peas as sampled.

Defects in split peas must be scored in accordance with the order shown in Section 501 *(e) of the standards. Once an individual pea is scored in a defective category, it must not be scored for any other defect but it must remain as a part of the sample for purposes of determining percentages of other defects in the sample.*

NOTE 1: When split peas that are offered for inspection as one lot are found to contain more than 10,000 containers or 1,000,000 pounds (bulk) of split peas, the lot must be sampled on the basis of two or more (approximately) equal-sized sublots of 10,000 containers or 1,000,000 pounds or less. Inspect each sublot separately.

NOTE 2: When split peas that are offered for inspection as one lot are subsequently found to contain portions that are distinctly different in class, quality, or condition, the split peas in each portion must be inspected separately.

Follow a systematic grading procedure. The order of procedure varies with the class and quality of the split peas and the tests that are required to determine the grade. A general order of procedure is as follows:

(1) Review the information on the sample ticket.

(2) Examine the representative sample for odor, color, broken glass, metal fragments, and distinctly low quality.

(3) Use an FGIS approved divider to process the representative sample into three representative portions: (a) work sample; (b) file sample; and (c) moisture portion.

(4) Examine the work sample for class and infestation.

(5) Divide out a 250-gram portion and sieve the portion to determine the percent of split peas that pass through 6/64-inch, 8/64-inch, and 10/64-inch round-hole sieves or to determine if the split peas meet the size requirements for "chips."

(6) Recombine the 250-gram portion and examine it for defective split peas and foreign material.

5.12 INSECT INFESTATION

NOTE: "Weevils" include pea weevils, coffee bean weevils, broad nosed grain weevils, rice weevils, granary weevils, maize weevils and lesser grain borers. "Other live insects" include beetles, moths, meal worms and other insects injurious to stored peas. Insect larvae are considered the same as adult insects.

To further define "other insects injurious to stored peas" refer to the USDA-ARS, Agricultural Handbook 500 – Stored Grain Insects. Images of insects may also be viewed on the GIPSA website.

a. Determine infestation on the basis of the work sample as a whole, a representative portion of approximately 250 grams, and the lot as a whole.

(1) Perform a cursory examination of the work sample. If two or more live insects are found, consider the split peas to be "U.S. Sample grade."

(2) Closely examine a representative portion of approximately 250 grams divided out from the work sample.

(a) If no live insects are found in the sample, make no further check of the sample for insects.

(b) If two or more live insects are found, consider the peas to be "U.S. Sample grade."

(c) If one insect is found, examine the remainder of the work sample.

1 If one or more insects are found in the remainder of the work sample, consider the peas to be "U.S. Sample grade."

2 If no insects are found in the remainder of the work sample, do not consider the peas to be "U.S. Sample grade."

NOTE: The presence of two or more split peas containing insect webbing or filth (refuse, excreta, dead insects or larvae) in the representative sample as a whole is considered sufficient evidence of insect infestation. But, the presence of pea weevils in a warehouse should not be considered an indication of infestation unless live or dead pea weevils are found inside bags or containers of peas.

(3) Examine the split peas in the lot; i.e., the surface area of the lot and the area around the lot.

(a) If no live insects are found in, on, or about the lot, make no further check of the lot for insects.

(b) If two or more live insects are found, consider the split peas to be "U.S. Sample grade."

b. When applicable, show "U.S. Sample grade on account of (live insects or insect webbing and filth)" on the work record and in the Remarks section of the certificate, and grade the split peas "U.S. Sample grade."

5.13 MOISTURE

Moisture. Water content in split peas as determined by an approved device according to procedures prescribed in FGIS instructions.

The moisture of split peas is determined by using the GAC2500-UGMA and Perten AM 5200-A instruments utilizing the calibrations of the predominate type of pea (see FGIS Directive 9180.61).

Basis of Determination. Determine moisture on a representative portion of approximately 650-grams.

The procedures for performing a moisture determination using the GAC2500-UGMA and Perten AM 5200-A meters are described in the Moisture Handbook.

Certification. Record the percent of moisture on the work record and result section of the certificate to the nearest tenth percent. If the moisture results exceed 15.0 percent, grade the peas "U.S. Sample grade."

5.14 TEST WEIGHT PER BUSHEL

NOTE: This factor is not provided for under the United States Standards for Split Peas, but may be determined upon applicant request.

a. Determine test weight per bushel before the removal of dockage on a representative portion of sufficient size to overflow the kettle and certify to the nearest tenth of a pound.

b. See Chapter 1 of the Grain Inspection Handbook, Book II, for information on performing test weight per bushel determinations.

c. Record the test weight per bushel on the work record and results section of the certificate to the nearest tenth of a pound.

5.15 CLASS

Split peas must be divided into the following classes:

Green Split Peas. Split peas from smooth green dry pea varieties.

Yellow Split Peas. Split peas from smooth yellow dry pea varieties.

Miscellaneous Split Peas. Split peas from classes of whole peas other than smooth green or smooth yellow dry pea varieties.

NOTE: There is no class of "Mixed Split Peas."

a. Class is usually determined by a cursory examination of the work sample as a whole.

b. When a detailed examination is necessary, make this determination on a representative portion of approximately 250 grams.

c. When Green or Yellow Split Peas contain in excess of the 1.5 percent of "contrasting split peas," and when Miscellaneous Split Peas contain in excess of 2.0 percent of "contrasting split peas," grade the split peas "U.S. Sample grade."

5.16 ODOR

a. Determine odor on the basis of the lot as a whole or the representative sample as a whole.

(1) Off-odors (i.e., musty, sour and commercially objectionable odors) are usually detected at the time of sampling.

(a) If there is any question as to the odor when the sample is being taken, put part of the sample into an airtight container to preserve its condition for further examination in the laboratory.

(b) Return the portion to the sample before other tests are made.

(2) A **musty** odor is any odor that is earthy, moldy, and ground-like. Do not confuse a burlap bag odor with a musty odor.

- A drier odor that resembles a moldy or basement odor should be made “Musty.”

(3) A **sour** odor is any odor that is rancid, sharp, or acrid.

(4) A **commercially objectionable** odor is any odor that is not normal to split peas and that, because of its presence, renders the split peas unfit for normal commercial usage; e.g., animal hides, fertilizer, oil products, skunk, smoke, fire-burnt and decaying animal and vegetable matter odors.

NOTE: A Split pea sample with a light drier (cooked) odor is not considered an objectionable odor.

(5) Fumigant or insecticide odors are considered commercially objectionable odors if they linger and do not dissipate. When a sample of split peas contains a fumigant or insecticide odor that prohibits a determination as to whether any other odor(s) exists, apply the following guidelines:

(a) Original Inspections. Allow the work portion to aerate in an open container for a period not to exceed 4 hours.

(b) Appeal and Board Appeal Inspections. Allow unworked file samples and new samples to aerate in an open container for a period not to exceed 4 hours. The 4-hour aeration requirement does not apply when the original work portion was aerated and retained as the final file.

(c) Final Action. Consider the sample as having a commercially objectionable odor if the fumigant or insecticide odor persists based on the above criteria.

b. When split peas are determined to be musty, sour, or have a commercially objectionable odor, record the type of odor on the work record and the certificate, and grade the split peas "U.S. Sample grade."

5.17 HEATING

a. Determine heating on the basis of the lot as a whole.

(1) When high temperatures develop in split peas as the result of excessive respiration, such split peas are heating.

(2) Heating split peas usually give off a sour or musty odor.

(3) Care should be taken, never to confuse split peas that are warm due to storage in bins, cars, or other containers during hot weather with split peas that are heating from excessive respiration.

b. When applicable, show the term "Heating" on the work record and the certificate, and grade the split peas "U.S. Sample grade."

5.18 DEFECTIVE SPLIT PEAS

Defective Split Peas. The categories of defective split peas must be weevil-damaged split peas, heat-damaged split peas, damaged split peas, contrasting split peas, whole peas, white caps and bleached split peas.

a. Determine defective peas on a representative portion of approximately 250 grams.

b. Score defects in the following order: Weevil-damaged, heat-damaged, damaged, contrasting split peas, whole peas (score weevil-damaged, heat-damaged, or damaged whole peas as "weevil-damaged," "heat-damaged," or "damaged," not as "whole peas"), white caps and bleached split peas.

(1) Once an individual split pea is scored, do not score it for any other defects but retain it as part of the sample for purposes of determining the percentage of other defects in the sample.

(2) Record the percent of each type of defect on the work record and the certificate to the nearest tenth percent.

5.19 WEEVIL-DAMAGED SPLIT PEAS

Weevil-Damaged Split Peas. Split peas (including whole peas in split peas) which are distinctly damaged by the pea weevil or other insects.

NOTE: Score weevil-damaged whole peas as "weevil-damaged," not as "whole peas." Do not include weevil-damaged in the total percent of damage split peas.

a. Determine weevil-damaged split peas on a representative portion of approximately 250 grams.

b. Usually, weevil-damaged split peas may be determined by visually examining the flat side of the cotyledon.

(1) The cavity left by the weevil larvae in the whole pea results in a cup-like indentation on the split pea. When this is found, consider the split peas to be weevil-damaged.

(2) Often, the pea weevil larvae dies before penetrating the center of the whole pea, leaving a black or discolored sting mark on the convex side of the cotyledon. When this sting mark is definite and shows distinct evidence of larvae penetration, consider the split pea to be weevil-damaged. (VRI- Split Peas - 1.61 Weevil Damage (Cavity).

c. Record the percent of weevil-damaged split peas on the work record and the certificate to the nearest tenth percent.

5.20 HEAT-DAMAGED SPLIT PEAS

Heat-Damaged Split Peas. Split peas (including whole peas in split peas) which have been materially discolored and damaged by heat.

NOTE: Score heat-damaged whole peas as "heat-damaged," not as "whole peas." Do not include heat-damaged in the total percent of damage split peas.

a. Determine heat-damaged peas on a representative portion of approximately 250 grams.

b. Consider split peas that have been discolored equal to or greater than that shown on VRI - Peas/Split Peas - 1.2 Heat Damage to be heat damaged.

c. Record the percent of heat-damaged peas on the work record and the certificate to the nearest tenth percent.

5.21 DAMAGED SPLIT PEAS

Damaged Split Peas. Split peas (including whole peas in split peas) which are distinctly damaged by frost, weather, disease, heat (other than to a material extent), or other causes (except weevil or material heat damage), or are distinctly soiled or stained by nightshade, dirt, or toxic material.

NOTE: Score damaged whole peas as "damaged," not as "whole peas."

a. Determine damaged split peas on a representative portion of approximately 250 grams.

b. The major types of damaged split peas are as follows:

(1) Stained Damaged Split Peas. Split peas and pieces of split peas which are discolored or stained, especially on the flat side. Split peas and pieces of split peas with stains, dirt and/or grime adhering to the cotyledon equal to or greater than shown on VRI -Split Peas - 4.0 Stained (Green) and VRI - Split Peas - 4.1 Stained (Yellow) must be considered damage.

(2) Frost Damaged Split Peas. Split peas and pieces of split peas which have been damaged by frost to the extent that the cotyledon has been discolored.

(3) Mold Damaged Split Peas. Split peas and pieces of split peas which contain mold equal to or greater than that shown on VRI - Peas - 1.4 Mold Damage. Mold may appear on or around the hilum, the surface, and/or the cotyledon.

- A pea that contains any mold on the cotyledon must be considered damaged. Mold occurs in many colors.

(4) Chalky Split Peas. Split peas that have a white spot on the surface of the cotyledon caused by unusual weather conditions, some harvesting practices, and/or Lygus bug stings. (Do not scrap the cotyledon of suspect split peas, merely remove their seedcoats.) Chalky split peas are considered damaged split peas, not weevil-damaged split peas. (See VRI - Peas/Split Peas - 1.0 Damage (Chalky).

(5) Damaged by Heat Split Peas. Split peas and pieces of split peas that have been damaged by heat to the extent that the cotyledon has been discolored equal to or greater than that shown on VRI - Peas/Split Peas - 1.3 Damage by Heat.

c. Record the percent of damaged peas on the work record and the certificate to the nearest tenth percent.

5.22 CONTRASTING SPLIT PEAS

Contrasting Split Peas. Split peas (including whole peas in split peas) which are of a color contrasting with the predominating class of split peas. Bleached Split peas of the predominating class must not be considered as contrasting split peas.

a. Determine contrasting split peas on a representative portion of approximately 250 grams.

b. Green Split peas created from the class Smooth Green Dry peas.

NOTE: **<u>Marrowfats in Smooth Green Dry peas function as Green Split peas</u>, however if a contract stipulates that split peas be processed from whole Smooth Green Dry Peas the marrowfat limit must not exceed 1.5 percent. If this occurs, the split peas will be considered to have been processed from Mixed Dry Peas, not Smooth Green Dry Peas. A qualifying statement is to be included in the remarks section of the certificate explaining the reason for the nonconformance.**

(1) The color of the cotyledon runs from pale green to dark green.

(2) Contrasting split peas in Green Split peas must be split peas which have a solid orange-yellow or creamy yellow color.

c. Yellow Split peas created from the class Smooth Yellow Dry peas.

(1) They have a brilliant orange-yellow color.

(2) Contrasting split peas in Yellow Split peas must be split peas which have a solid green color associated with the color of the cotyledons of the Smooth Green Dry peas, or as in the case of Mottled peas, a smaller yellow cotyledon having pieces of black or grayish green colored seedcoat clinging to it.

NOTE: **Yellow Split peas often contain split peas which have green blotches on the Yellow Split peas or they may be almost entirely green with tinges of yellow coloring. These are considered as Bleached Yellow Split peas (if they meet the line for bleach) and should not be considered as contrasting split peas in Yellow Split peas.**

d. Miscellaneous Split peas are made from the class Mottled Dry peas.

(1) Miscellaneous Split peas are considerably smaller than Yellow Split peas and have a creamier colored cotyledon. Often, they have pieces of a brownish black or grayish green colored seedcoat clinging to the cotyledon.

(2) Contrasting split peas in Miscellaneous Split peas must be split peas which have a solid green color associated with the color of the cotyledons of the Smooth Green Dry peas, or as in the case of Yellow Split peas, a large yellow cotyledon.

e. Record the percent of contrasting split peas on the work record and the certificate to the nearest tenth percent.

5.23 WHOLE PEAS

Whole Peas. Dry peas which are not split.

NOTE: Score defective whole peas as "whole peas," unless they are weevil-damaged, heat-damaged, or damaged. In this case, score weevil-damaged, heat-damaged, or damaged whole peas as "weevil-damaged split peas," "heat-damaged split peas," or "damaged split peas." Do not include weevil-damaged and/or heat-damaged split peas in the total percent of damage split peas.

a. Determine whole peas on a representative portion of approximately 250 grams.

b. A "whole pea" is any pea which is 55 percent or more of a whole pea. Un-split peas with the seed coat removed must be considered "whole peas." (Refer to VRI – Split Peas - 4.2 Whole Dry Pea) for reference.

c. Record the percent of whole peas on the work record and the certificate to the nearest tenth percent.

5.24 WHITE CAPS

White Caps. Split peas with the seed coat attached.

a. Determine white caps on a representative portion of approximately 250 grams.

b. During the process of splitting whole dry peas, the seedcoat is removed. For various reasons, part of the seedcoat sometimes adheres very tightly to the cotyledon causing "white caps." White caps are readily distinguishable as they show up well in any class of split peas.

c. Seedcoats come in a number of colors; e.g., white, tan, green, brown, black, purple, or mottled. Consider split peas with seedcoats attached to be white caps regardless of the color of the seed coat.

d. Record the percent of white caps on the work record and the certificate to the nearest tenth percent.

5.25 BLEACHED SPLIT PEAS

Bleached Split Peas. Split peas of green-colored varieties which are bleached distinctly yellow in color or split peas of yellow-colored varieties which are bleached distinctly green in color.

NOTE: Bleached Split peas is not a grading factor in Miscellaneous Split peas.

a. Determine Bleached Split peas on a representative portion of approximately 250 grams.

b. Bleached Split peas in Green Split peas are those split peas which are white or light creamy yellow in color as contrasted with the natural color of Green Split peas. (See VRI--Peas/Split Peas - 2.0 Bleached (Green Peas)).

c. Bleached Split peas in Yellow Split peas are often those split peas that have green blotches or those that are almost entirely green with tinges of yellow coloring. (See VRI–Peas/Split Peas - 2.1 Bleached (Yellow Peas).

d. Bleached Split peas must be distinctly bleached with at least one-eighth of the surface distinctly yellow or green in color, as the case may be, in contrast to the good natural color which is characteristic of the class being graded.

e. Record the percent of Bleached Split peas on the work record and the certificate to the nearest tenth percent.

5.26 FOREIGN MATERIAL

Foreign Material. All matter which will pass readily through a 2 ½ /64 round-hole sieve and all matter other than split peas and whole peas which remains on the sieve. (Foreign material must include detached seedcoats and pieces of detached seedcoats.)

a. Determine foreign material on a representative portion of approximately 250 grams.

(1) Nest a 2 ½ /64-inch round-hole sieve on top of a bottom pan.

(2) Place the sieve in a mechanical grain sizer and set the timer to 20.

(3) Put the representative portion in the center of the sieve and actuate the sizer.

NOTE: If a mechanical sizer is unavailable, hold the sieves and bottom pan level and, using a steady motion, move the sieves from right to left approximately 10 inches, and return from left to right to complete one sieving operation. Repeat this operation twenty times.

(4) Return the peas remaining in the perforations of the sieve to the portion that remains on top of the sieve.

(5) Remove any material, other than split peas, remaining in the portion on top of the sieve, including detached seedcoats. Place this material with the portion that passed through the sieve and consider the entire portion as foreign material.

b. Record the percent of foreign material on the work record and on the certificate to the nearest tenth percent.

5.27 SIZE REQUIREMENTS

THE U.S. STANDARDS FOR SPLIT PEAS CONTAIN GRADE LIMITS FOR THE PERCENT OF SPLIT PEAS THAT MAY PASS THROUGH 10/64-INCH, 8/64-INCH, AND 6/64-INCH ROUND-HOLE SIEVES.

Split Pea Chips. The split peas must readily pass through a 12/64-inch round-hole sieve. Additional size requirements of the respective numerical grades must be as follows:

U.S. No. 1 *Not more than 3.0 percent must readily pass through a 6/64-inch round-hole sieve.*

U.S. No. 2 *Not more than 6.0 percent must readily pass through a 6/64-inch round-hole sieve.*

U.S. No. 3 *Not more than 10.0 percent must readily pass through a 6/64-inch round-hole sieve.*

a. Determine uniformity of size and/or the special grade "Chips" on a representative portion of approximately 250 grams.

b. Size split peas as follows:

(1) Nest the appropriate size sieves on top of a bottom pan.

(2) Place the sieves in a mechanical grain sizer and set the timer to 20.

NOTE: If a mechanical sizer is unavailable, hold the sieves and bottom pan level and, using a steady motion, move the sieves from right to left approximately 10 inches, and return from left to right to complete one sieving operation. Repeat this operation twenty times.

(3) Return the peas remaining in the perforations of the sieve to the portion that remains on top of the sieve.

(4) Determine the percent of peas that pass through each of the sieves.

c. When determining uniformity of size, record the percent of peas that pass through the sieves and the size of sieves used in the determination on the work record and on the certificate to the nearest tenth percent.

d. When determining the special grade "Chips," if all of the peas pass through a 12/64-inch round-hole sieve, show the special grade "Chips" on the work record and on the grade line of the certificate; and also record the percent of peas that pass through the 6/64-inch round-hole sieve on the work record and on the certificate to the nearest tenth percent.

5.28 COLOR

Good Color Split Peas. Split peas that in mass are practically free from discoloration and have the natural color and appearance characteristics of the predominating class.

Fair Color Split Peas. Split peas that in mass are off-color from the characteristic color of the predominating class as a result of age or any other cause.

Poor Color Split Peas. Split peas that in mass are distinctly off-color from the characteristic color of the predominating class as a result of age or any other cause.

a. Determine color on the representative sample as a whole.

b. Record the color as "good," "fair," or "poor" on the work record and the certificate.

5.29 U.S. SAMPLE GRADE CRITERIA

Basis of Determination. Determine U.S. Sample Grade criteria on the lot as a whole and/or the representative sample as a whole. Table 1 shows the criteria and corresponding tolerance limits, and the appropriate basis of determination.

TABLE 1

U.S. SAMPLE GRADE CRITERIA

Criteria	Number/Weight **1/**	
	Sample Basis	Lot Basis **2/**
Any numerical grading factor	exceeds limits for U.S. No. 3	N/A
Moisture	more than 15.0%	N/A
Animal filth	2 or more	2 or more
Deer/Elk Pellets	1 or more	1 or more
Broken Glass (any size)	Presence	Presence
Live Insects	2 or more	2 or more
Metal Fragments	2 or more	2 or more
Odor	Presence	Presence
Insect Webbing or Filth	2 or more	2 or more
Heating	Presence	Presence

1/ Record count factors to the nearest whole number.

2/ The entire sample of a submitted sample is considered as the lot.

Certification. Grade dockage-free peas "U.S. Sample Grade" when one or more of the limits in table 1 are exceeded. Record the reason(s) why in the "Results" section of the certificate. Record count factors to the nearest whole number.

5.30 DISTINCTLY LOW QUALITY

Distinctly Low Quality. Split peas which are obviously of inferior quality because they are stained by an unknown foreign substance or because they otherwise contain a known toxic substance(s) or an unknown foreign substance(s) or because they are in an unusual state or condition, and which cannot be graded by use of the other grading factors provided in the standards.

a. Determine distinctly low quality on the basis of the lot as a whole or the representative sample as a whole.

b. Split peas that are obviously affected by unusual conditions which adversely affect the quality of the peas, **such as unknown foreign substance, or treatment with a fungicide**, must be considered to be "distinctly low quality."

c. Record the words "Distinctly Low Quality" and the reason(s) why in the "Results" section of the certificate, and grade the split peas "U.S. Sample grade."

5.31 VISUAL REFERENCE IMAGES

VISUAL REFERENCE IMAGES (VRI) (Table 2) are used to ensure consistent and uniform application of grading lines and illustrate types of damage in conjunction with written descriptions.

Table 2
Visual Reference Images

PEAS/S. PEAS – 1.0	**DAMAGE (CHALKY)**
PEAS – 1.1	**DAMAGE (A. DIRT, B. GRIME)**
PEAS/S. PEAS – 1.2	**HEAT DAMAGE**
PEAS/S. PEAS – 1.3	**DAMAGED BY HEAT**
PEAS – 1.4	**MOLD/MILDEW DAMAGE**
PEAS – 1.5	**SPROUT DAMAGE**
PEAS – 1.6	**WEEVIL DAMAGE**
S. PEAS – 1.61	**WEEVIL DAMAGE (CAVITY)**
PEAS – 1.7	**WEEVIL DAMAGE (STING)**
PEAS – 1.8	**FROST DAMAGE**
PEAS/S. PEAS – 2.0	**BLEACHED (GREEN PEAS)**
PEAS/S. PEAS – 2.1	**BLEACHED (YELLOW PEAS)**
PEAS – 3.0	**CRACKED SEED COATS**
S. PEAS – 4.0	**STAINED (GREEN)**
S. PEAS – 4.1	**STAINED (YELLOW) WHOLE**
S. PEAS – 4.2	**DRY PEA SHRIVELED**
PEAS – 5.0	**(SMOOTH) SHRIVELED**
PEAS – 5.2	**(WRINKLED)**
PEAS – 5.3	**BACTERIUM/FUNGAL STAIN**
PEAS – 5.4	**WEATHER DAMAGE**

GRADES AND GRADE REQUIREMENTS FOR SPLIT PEAS

Grading Factors	Maximum percent limits of: Grades U.S. Nos.		
	1	2	3
Split Peas Passing Through -			
10/64-inch Round-Hole Sieve	3.0	15.0	25.0
8/64-inch Round-Hole Sieve	0.5	3.0	5.0
6/64-inch Round-Hole Sieve	0.1	0.2	0.3
Weevil-Damaged Split Peas	0.5	1.0	1.5
Heat-Damaged Split Peas	0.2	0.5	1.0
Damaged Split Peas 1/	1.0	1.5	2.0
Contrasting Split Peas			
In Green & Yellow Split Peas Only	0.3	0.8	1.5
In Miscellaneous Split Peas Only	0.5	1.0	2.0
Whole Peas	0.5	1.0	2.0
White Caps			
In Green & Yellow Split Peas Only	1.0	2.0	3.0
In Miscellaneous Split Peas Only	1.5	3.0	5.0
Bleached Peas in Green & Yellow Split Peas Only	1.5	3.0	5.0
Foreign Material	0.1	0.2	0.5
Minimum Requirements for Color	Good	Fair	Poor

U.S. Sample grade: U.S. Sample grade must be split peas which:

(a) Do not meet the requirements for the grades U.S. Nos. 1, 2, or 3; or
(b) Contain more than 15.0 percent moisture; live weevils, other live insects, insect webbing or filth, metal fragments, broken glass, or commercially objectionable odor; or
(c) Are heating or are of distinctly low quality.

1/ Damaged split peas do not include weevil-damaged or heat-damaged split peas.